IN THE CLAIMS

1. (currently amended) Friction clutch device including, on the one hand, a rotational drive flywheel (13) featuring a front extremity intended to be fixed to a drive shaft (11), and a rear extremity in the form of a hollow-shaped reaction plate (4) with a central recess (39) delimited externally by a friction face (37), and, on the other hand, a friction disc (20) comprising, at its outer periphery, at least one friction lining (16) for contact with the friction face (37), of the reaction plate (4), ~~the~~ said friction lining (16) being integral with a support (21) coupled elastically, by way of a torsion damper (20a), to a central hub (15) intended to be integrated in rotation with a driven shaft,

wherein ~~characterised in that~~ the torsion damper (20a) penetrates into the central recess (39) of the reaction plate (4) and ~~in that~~ the drive flywheel (13), between its front and rear extremities, carries the rotor (6) of a rotating electric machine (2) comprising a fixed stator (5),

and wherein the torsion damper (20a) includes, on the one hand, a first guide washer (29) integral with the support (21) and with a second guide washer (30), and, on the other hand, a web (34) arranged between the two guide washers (29, 30), and linked in rotation, possibly after taking up play, with the hub (15),

and wherein the second guide washer (30) is installed in the central recess (39) of the reaction plate (4).

2. (canceled)

3. (currently amended) Device according to Claim ~~2~~ 1, wherein ~~characterised in that~~ the torsion damper (20a) is installed radially under a first annular portion (38) of axial orientation being connected to the inner periphery of the friction face (37).

4. (currently amended) Device according to Claim 3, wherein ~~characterised in that~~ the first portion (38) is extended inwards by an inclined portion (142).

5. (currently amended) Device according to Claim 4, wherein ~~characterised in that~~ the inclined portion is extended by a ring (130) o£ transverse orientation.

6. (currently amended) Device according to Claim 3, wherein ~~characterised in that~~ the first portion (38) is connected to a ring of transverse orientation (130).

7. (currently amended) Device according to Claim 3, wherein ~~characterised in that~~ the recess (39) is staircase-shaped.

8. (canceled)

9. (currently amended) Friction clutch device ~~Device according to Claim 8,~~ including, on the one hand, a rotational drive flywheel (13) featuring a front extremity intended to be fixed to a drive shaft (11), and a rear extremity in the form of a hollow-shaped reaction plate (4) with a central recess (39) delimited externally by a friction face (37), and, on the other hand, a friction disc (20) comprising, at its outer periphery, at least one friction lining (16) for contact with the friction face (37), of the reaction plate (4), ~~the~~ said friction lining (16) being integral with a support (21) coupled elastically, by way of a torsion damper (20a), to a central hub (15) intended to be integrated in rotation with a driven shaft,

wherein the torsion damper (20a) penetrates into the central recess (39) of the reaction plate (4) and the drive flywheel (13), between its front and rear extremities, carries the rotor (6) of a rotating electric machine (2) comprising a fixed stator (5),

wherein the drive flywheel (13) is in at least a first part consisting of the reaction plate (4) and a second part (130, 131, 46) integral in rotation with the first part and intended to be fixed onto the drive shaft (12), and

wherein ~~characterised in that~~ the second part (130, 131, 46, 230) consists of a spacer intended to be interposed between the drive shaft and the reaction plate.

10. (currently amended) Device according to Claim 9, wherein ~~characterised in that~~ the spacer (130, 131, 46) has an overall U-shaped cross section with an upper branch (46) of axial orientation, overall in the form of a sleeve with an end shoulder (48) for fixing to the rotor (6) of the electric machine (2), and an annular lower branch (131) of axial orientation for fixing to the reaction plate (4).

11. (currently amended) Device according to Claim 9, wherein ~~characterised in that~~ the spacer (230) consists of a shaft.

12. (currently amended) Device according to Claim ~~8~~ 9, wherein ~~characterised in that~~ the second part consists of a shaft splined at its rear extremity for linking in rotation with the reaction plate (4).

13. (currently amended) Device according to Claim ~~8~~ 9, wherein ~~characterised in that~~ the second part consists of a pedestal splined internally for linking in rotation with a central shaft (430} coming from the reaction plate (4).

14. (currently amended) Device according to Claim ~~8~~ 9, wherein ~~characterised in that~~ the second part consists of a flange (431a) linked in rotation with a central shaft (430a) coming from the reaction plate (4).

15. (currently amended) Device according to Claim 14, wherein ~~characterised in that~~ the flange (431a) centrally features a hub (431b) with an internal bore of frustoconical shape for mounting on the outer periphery of the shaft (430a) of frustoconical shape.

16. (currently amended) Device according to Claim 14, wherein ~~characterised in that~~ the flange (431a), at its outer periphery, carries a sleeve with an end shoulder (48) for fixing to the rotor (6) of the electric machine (2).

17. (currently amended) Friction clutch device ~~Device according to Claim 1,~~ including, on the one hand, a rotational drive flywheel (13) featuring a front extremity intended to be fixed to a drive shaft (11), and a rear extremity in the form of a hollow-shaped reaction plate (4) with a central recess (39) delimited externally by a friction face (37), and, on the other hand, a friction disc (20) comprising, at its outer periphery, at least one friction lining (16) for contact with the friction face (37), of the reaction plate (4), ~~the~~ said friction lining (16) being integral with a support (21) coupled elastically, by way of a torsion damper (20a), to a central hub (15) intended to be integrated in rotation with a driven shaft,

wherein the torsion damper (20a) penetrates into the central recess (39) of the reaction plate (4) and the drive flywheel (13), between its front and rear extremities, carries the rotor (6) of a rotating electric machine (2) comprising a fixed stator (5),

wherein ~~characterised in that~~ the drive flywheel (13) carries bearing means (132) interposed radially between the said flywheel (13) and a carrier piece (134) integral with the stator (5) for defining a precise gap between the stator (5) and the rotor (6).

18. (currently amended) Device according to Claim 17, wherein ~~characterised in that~~ the bearing means (132) are installed radially above elements (145) for fixing the drive flywheel (13) to the drive shaft (11).

19. (currently amended) Device according to Claim 18, wherein ~~characterised in that~~ the bearing means (132) are carried at their inner periphery by a spacer (130, 46, 131) belonging to the flywheel (13) and integral with the reaction plate (4) for forming a spacer between the reaction plate (4) and the drive shaft (11).

20. (currently amended) Device according to Claim 18, wherein ~~characterised in that~~ the bearing means (132) are carried at their outer periphery by a sleeve (46) integral with the reaction plate (4) and at their inner periphery by a skirt (133) integral with a carrier piece (134) carrying the stator (5) at its outer periphery.

21. (currently amended) Device according to Claim 17, wherein ~~characterised in that~~ the bearing means (132) are installed on the same circumference as the elements (245) for fixing the drive flywheel (13) to the drive shaft (11).

22. (currently amended) Device according to Claim 11, wherein ~~characterised in that~~ the bearing means (132) are installed radially below elements (345) for fixing the drive flywheel (13) to the drive shaft (11).

23. (currently amended) Device according to Claim 22, wherein ~~characterised in that~~ the carrier piece is provided with through-holes (545), for at least one tool for screwing the fixing elements (345), consisting of screws, to pass through.

24. (currently amended) Device according to Claim 23, wherein ~~characterised in that~~ the reaction plate (4) features through-holes in axial coincidence with the through-holes (545} of the carrier piece.

25. (currently amended) Device according to Claim 17, wherein ~~characterised in that~~ the carrier piece (134) is integral with a spacer (61) and internally carries elastic means (462, 463) which can be deformed in order for elements (64), for fixing and flexible mounting of the carrier piece (134) onto an ~~the~~ engine block (62) of an ~~the~~ internal-combustion engine, to pass through.

26. (currently amended) Device according to Claim 1, wherein an ~~characterised in that the~~ engine flywheel (13) carries clearance means for chignons (8) which the stator (5) of the electric machine (2) features in axial projection.

27. (currently amended) Device according to Claim 17, wherein ~~characterised in that~~ the carrier piece (134) features clearance means for chignons (8) which the stator (5) of the electric machine (2) features in axial projection.

28. (currently amended) Device according to Claim 1, wherein ~~characterised in that~~ the engine flywheel (31) carries cooling means for cooling the electric machine.

29. (currently amended) Device according to Claim 28, wherein ~~characterised in that~~ the cooling means consist of fins (1200, 1201, 1202, 1206) carried by one of the elements of the reaction ~~plate (4)/rotor (6)~~ plate (4) and rotor (6).

30. (currently amended) Device according to Claim 1, wherein ~~characterised in that~~ the stator (5) of the electric machine (2) carries cooling means.

31. (currently amended) Device according to Claim 30, wherein ~~characterised in that~~ the cooling means consist of piercings formed in the pack of metal plates (10) which the stator (5) features, ~~the~~ said piercings making it possible to transport a heat-carrying fluid from one face to the other.

32. (currently amended) Device according to Claim 30, wherein ~~characterised in that~~ the stator (5) is integral with a spacer (61) carrying an air inlet (1208) and an air outlet (127).

33. (currently amended) Device according to Claim 1, wherein ~~characterised in that~~ the reaction plate, at its outer periphery, features an annular skirt (144) surrounding at least one of the friction lining ~~or~~ and linings (16) of the friction disc (20) and wherein ~~in that~~ the annular skirt (144), at its inner periphery, features a groove (148) for catching the dust.

34. (currently amended) Device according to Claim 20, wherein ~~characterised in that~~ the reaction plate (4) includes a sleeve (46) carrying the rotor (6) of the electric machine (2).

35. (currently amended) Device according to Claim 1, wherein ~~characterised in that~~ the drive flywheel (13) locally features removal of material (1000) for dynamic balancing of the friction-clutch device.

36. (currently amended) Device according to Claim 1, wherein ~~characterised in that~~ the drive flywheel (13) locally features additions of material for dynamic balancing of the friction clutch device.

37. (currently amended) Device according to Claim 1, wherein ~~characterised in that~~ the reaction plate (4) features tappings for mounting a removable plate (3000) equipped with at least one gauge rod (3001) penetrating, with centring, into a hole (3002) formed in a pack of metal plates (10) which the stator (5) features.

38. (currently amended) Device according to Claim 37, wherein ~~characterised in that~~ the plate (3000) carries shims (3007) intended to be interposed between the stator (5) and the rotor (6) for defining a gap (7).

39. (currently amended) Device according to Claim 1, wherein ~~characterised in that~~ the reaction plate (4), at its outer periphery, features a toothed crown ring intended to be associated with at least one sensor.

40. (currently amended) Friction clutch device ~~Device according to Claim 1,~~ including, on the one hand, a rotational drive flywheel (13) featuring a front extremity intended to be fixed to a drive shaft (11), and a rear extremity in the form of a hollow-shaped reaction plate (4) with a central recess (39) delimited externally by a friction face (37), and, on the other hand, a friction disc (20) comprising, at its outer periphery, at least one friction lining (16) for contact with the friction face (37), of the reaction plate (4), ~~the~~ said friction lining (16) being integral with a support (21) coupled elastically, by way of a torsion damper (20a), to a central hub (15) intended to be integrated in rotation with a driven shaft,

wherein the torsion damper (20a) penetrates into the central recess (39) of the reaction plate (4) and the drive flywheel (13), between its front and rear extremities, carries the rotor (6) of a rotating electric machine (2) comprising a fixed stator (5), and

wherein ~~characterised in that~~ the reaction plate (4) carries a cover (19) on which is mounted, so as to pivot, a diaphragm (18, 22) bearing on the cover (19) for acting on a reaction plate (17) and clamping of the friction lining (16) between the pressure plates (17) and the reaction plate (4), ~~the~~ said pressure plate being integral in rotation with ~~the~~ said cover (19) while being able to be moved axially with respect to it,

wherein a declutching release bearing (23) is intended to act on inner extremities of the fingers (22) which the diaphragm features centrally and in that the declutching release bearing belongs to a declutching device (24).

41. (canceled)

42. (currently amended) Device according to Claim ~~41~~ 42, wherein ~~characterised in that~~ the declutching device (24) ~~of the concentric type~~ includes a piston (241) mounted so that it can move within a blind annular cavity (243) of axial orientation for forming a variable-volume chamber, and wherein ~~in that~~ the piston (241) carries the declutching release bearing (23) and wherein ~~in that~~ the blind annular cavity (243) is delimited by an outer body (242), wherein ~~in that~~ a pre-load spring (244) acts between the outer body (242) and the declutching release bearing (23), and wherein ~~in that~~ a force sensor (2000) is associated with the pre-load spring (244).

43. (currently amended) Device according to Claim 42, wherein a ~~characterised in that the~~ position sensor is placed between the pre-load spring (244) and the outer body {242).

44. (currently amended) Device according to Claim ~~41~~ 42, wherein ~~characterised in that~~ the declutching device ~~of the concentric type~~ is manoeuvred by an electric-motor actuator linked to a computer receiving information originating from sensors detecting the speed of rotation of the drive shaft (11) and of the driven shaft (12), and wherein ~~in that~~ the sensor of the speed of rotation of the drive shaft is used to detect the speed of rotation of the rotor (6) of the electric machine.

45. (currently amended) Device according to claim 40, further comprising ~~characterised in the it includes~~ a wear take-up device for compensating for at least the wear of ~~the~~ said friction lining.